IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claim 38 AMEND claim 16 in accordance with the following:

1-15 (cancelled)

16. (currently amended) A method for determining the position of a mobile object using at least one radio signal with a rotating transmission characteristic, each radio signal being transmitted by a reference station, comprising:

detecting the radio signal at the mobile object;

checking for the presence of a reference event associated with the radio signal, the mobile object checking for reference event when the mobile object detects the radio signal;

communicating to the mobile object a relationship between the orientation of the transmission characteristic and the reference event, the reference event ~~including~~ being a predefined data structure for the radio signal or a predefined data content for the radio signal; and

determining the position of the mobile object relative to the reference station, the mobile object determining the position from the relationship between the orientation of the transmission characteristic and the reference event.

17. (previously presented) A method in accordance with Claim 16, wherein

the mobile object additionally determines a relative distance of the mobile object from the reference station, and

the relative distance is determined from signal parameters of the radio signal.

18. (previously presented) A method in accordance with claim 17, wherein

physical transmission parameters of the radio signal are measured by the mobile object, and

the physical transmission parameters are regarded as signal parameters.

19. (previously presented) A method in accordance with Claim 17, wherein

data content of the radio signal is regarded as a signal parameter,

the data content relates to physical transmission parameters of the radio signal, and

the mobile object compares reception characteristics of the radio signal with the physical transmission parameters to determine the relative distance.

20. (previously presented) A method in accordance with claim 16, wherein

the mobile object detects first and second radio signals and checks each for the presence of a reference event, the first and second radio signals being transmitted from first and second reference stations, and

the mobile object determines its position relative to both the fist and second reference stations.

21. (previously presented) A method in accordance with claim 16, wherein

the reference event relates to the time of detection of the radio signal,

the time of transmission of the radio signal varies around the reference station, and

a relationship between the orientation of the radio signal and the time of transmission is communicated to the mobile object.

22. (previously presented) A method in accordance with Claim 16, wherein

the reference event includes identification data that identifies the specific data segments of the radio signal.

23. (previously presented) A method in accordance with claim 16, wherein

a data frame associated with transmission of the radio signal varies around the reference station,

the mobile object checks for a data frame number associated with the radio signal, when the mobile object detects the radio signal, and

a relationship between the data frame number and orientation of the radio signal is communicated to the mobile object.

24. (previously presented) A method in accordance with claim 16, wherein the rotation transmission characteristic is achieved by rotating a direction of radiation of the radio signal.

25. (previously presented) A method in accordance with claim 24, wherein

the rotating transmission characteristic is achieved by transmitting at least two radio signals from the reference station such that radio signals rotate in opposing directions around the reference station.

26. (previously presented) A method in accordance with claim 16, wherein

the radio signal is transmitted with an omnidirectional radiation, and

the rotating transmission characteristic is generated through a rotating area of attenuation around the reference station.

27. (previously presented) A method in accordance with claim 16, wherein

the radio signal is also used to transmit signaling data and/or communication data.

28. (previously presented) A method in accordance with claim 19, wherein

the mobile object detects first and second radio signals and checks each for the presence of a reference event, the first and second radio signals being transmitted from first and second reference stations, and

the mobile object determines its position relative to both the fist and second reference stations.

29. (previously presented) A method in accordance with claim 28, wherein

the reference event relates to the time of detection of the radio signal,

the time of transmission of the radio signal varies around the reference station, and

a relationship between the orientation of the radio signal and the time of transmission is communicated to the mobile object.

30. (previously presented) A method in accordance with Claim 29, wherein

the reference event includes identification data that identifies the specific data segments of the radio signal.

31. (previously presented) A method in accordance with claim 30, wherein

a data frame associated with transmission of the radio signal varies around the reference station,

the mobile object checks for a data frame number associated with the radio signal, when the mobile object detects the radio signal, and

a relationship between the data frame number and orientation of the radio signal is communicated to the mobile object.

32. (previously presented) A method in accordance with claim 31, wherein the rotation transmission characteristic is achieved by rotating a direction of radiation of the radio signal.

33. (previously presented) A method in accordance with claim 32, wherein

the rotating transmission characteristic is achieved by transmitting at least two radio signals from the reference station such that radio signals rotate in opposing directions around the reference station.

34. (previously presented) A method in accordance with claim 33, wherein

the radio signal is transmitted with an omnidirectional radiation, and

the rotating transmission characteristic is generated through a rotating area of attenuation around the reference station.

35. (previously presented) A method in accordance with claim 34, wherein

the radio signal is also used to transmit signaling data and/or communication data.

36. (previously presented) A user terminal comprising:

a device to detect a radio signal, which is transmitted from a reference station with a data structure or data content that varies rotationally around the reference station;

a device to check for the presence of a reference event, the reference event being the data structure or data content associated with detected the radio signal;

a memory to store a relationship between the data structure or data content and a rotational position of transmission around the reference station; and

a device to determine a position of the user terminal relative to the reference station based on the reference event and the relationship between the data structure or data content and the rotational position.

37. (previously presented) A user terminal in accordance with Claim 36, further comprising:

a device to determine a relative distance of the user terminal from the reference station based on reception signal parameters of the radio signal.

38. (cancelled)